CLAIMS

I claim:

1. A computer system comprising:

a bus;

at least one memory coupled to the bus for storing data, including an operating system; and

a central processing unit (CPU) coupled to the bus running the operating system with a virtual device driver (VxD), wherein the virtual device driver performs device idle detection using one or more events timers indicating the activity level of at least one local device, and further wherein the virtual device driver places idle local devices in a reduced power consumption state when associated events timers indicate that no activity has occurred for a predetermined period of time.

2. The computer system defined in Claim 1 wherein the virtual device driver performs system idle detection.

3. The computer system defined in Claim 1 wherein the virtual device driver comprises I/O trapping capabilities to perform idle detection.

4. The computer system defined in Claim 1 wherein the virtual device driver comprises a VxD trap handler to perform idle detection.

5. The computer system defined in Claim 1 wherein the virtual device driver comprises a chained-interrupt trap handler to perform idle

detection.

6. The computer system defined in Claim 1 wherein the memory stores data structures indicating enabled local devices being monitored by the device driver.

7. The computer system defined in Claim 1 wherein the memory stores data structures indicating events being monitored by the device driver.

8. The computer system defined in Claim 1 wherein the memory stores data structures indicating I/O address ranges for local devices.

9. The computer system defined in Claim 1 wherein the memory stores data structures indicating activity level of local devices to the device driver.

10. The computer system defined in Claim 1 wherein the memory stores data structures indicating power management states into which the device driver may place the computer system.

11. A computer system comprising:

a bus;

a central processing unit (CPU) coupled to the bus running an operating system and at least one power-unaware application, wherein the

operating system has a device driver performing device idle detection using one or more events timers indicating the activity level of at least one local device, and further wherein the device driver places idle local devices in a reduced power consumption state when associated events timers indicate that no activity has occurred for a predetermined period of time transparent to said at least one power-unaware application.

12. The computer system defined in Claim 11 wherein the virtual device driver performs system idle detection.

13. The computer system defined in Claim 11 wherein the virtual device driver comprises I/O trapping capabilities to perform idle detection.

14. The computer system defined in Claim 11 wherein the virtual device driver comprises a VxD trap handler to perform idle detection.

15. The computer system defined in Claim 11 wherein the virtual device driver comprises a chained-interrupt trap handler to perform idle detection.

16. The computer system defined in Claim 11 wherein the memory stores data structures indicating enabled local devices being monitored by the device driver.

17. The computer system defined in Claim 11 wherein the memory stores data structures indicating events being monitored by the device driver.

18. The computer system defined in Claim 11 wherein the memory stores data structures indicating I/O address ranges for local devices.

19. The computer system defined in Claim 11 wherein the memory stores data structures indicating activity level of local devices to the device driver.

20. The computer system defined in Claim 11 wherein the memory stores data structures indicating power management states into which the device driver may place the computer system.